

Order 12953



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D4011-1

Job Sheet 189584



Part No: D4011-1

Job Qty: 60 pcs

Part Name: Clamp, Short



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/28/19

Job Tracking No:

Due Date: 2/15/19

Created By: Dara Macdonald

Type: SOLD

Description:

Note: DWG REV C IPP RevA: New issue DD verified by:EC IPP Rev:B 11.05.19 MADE IN HOUSE DD verified by:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Waterjet - Omax - 1	60 pcs	2/15/19	2/15/19	0.00	2.67	Waterjet - Omax		2/19/01/31
120	QC 8	60 pcs	2/15/19	2/15/19	0.00	0.00	QC 8 - 12		
							QC 8 - 14		
							QC 8 - 17		
							QC 8 - 20		
							QC 8 - 25		
							QC 8 - 3		
							QC 8 - 32		
							QC 8 - 33		
							QC 8 - 35		DAS
							QC 8 - 38		38
							QC 8 - 39		9-89
							QC 8 - 4		
							QC 8 - 44		
							QC 8 - 45		
							QC 8 - 49		
							QC 8 - 58		
							QC 8 - 8		
							QC 8 - 9		
							QC 8 - 68		
							QC 8 - 67		
							QC 8 - 1 (A)		DAS
130	Small Fab - Brake NC - B4B	60 pcs	2/15/19	2/15/19	0.02	3.05	Small Fab - Brake - 1 - B4B		36
							Small Fab - Brake - 2 - B4B		9-89
							Small Fab - Brake - 3 - B4B		
140	QC 5	60	2/15/19	2/15/19	0.00	0.00	QC 5 - 10		

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				QC 5 - 12	
				QC 5 - 17	
				QC 5 - 18	
				QC 5 - 19	
				QC 5 - 22	
				QC 5 - 24	
				QC 5 - 3	
				QC 5 - 38	
				QC 5 - 42	
				QC 5 - 43	
				QC 5 - 49	
				QC 5 - 51	
				QC 5 - 58	
				QC 5 - 68	DAS FEB 1 1 2019 68
				QC 5 - 9	9-89
				QC 5 - 50	
				QC 5 - 30	
150	Packaging 3-1 - Stock - B4B	60 pcs	2/15/19	0.00 0.00	Packaging 3 - 1 - B4B
					Packaging 3 - 2 - B4B
					Packaging 3 - 3 - B4B
					Packaging 3 - 4 - B4B
					Packaging 3 - 5 - B4B
					Packaging 3 - 6 - B4B
					Packaging 3 - 7 - B4B
					Packaging 3 - 8 - B4B
					Packaging 3 - 9 - B4B
					Packaging 3 - 10 - B4B
					Packaging 3 - 11 - B4B
					Packaging 3 - 12 - B4B
					Packaging 3 - 13 - B4B
					Packaging 3 - 14 - B4B
					Packaging 3 - 15 - B4B
					Packaging 3 - 16 - B4B
					Packaging 3 - 17 - B4B
					Packaging 3 - 18 - B4B
					Packaging 3 - 19 - B4B
					Packaging 3 - 20 - B4B
					Packaging 3 - 21 - B4B
					Packaging 3 - 22 - B4B
					Packaging 3 - 23 - B4B
					Packaging 3 - 24 - B4B
					Packaging 3 - 25 - B4B
					Packaging 3 - 26 - B4B
					Packaging 3 - 27 - B4B
					Packaging 3 - 28 - B4B
					Packaging 3 - 29 - B4B
					Packaging 3 - 30 - B4B
					Packaging 3 - 31 - B4B
					Packaging 3 - 32 - B4B
					Packaging 3 - 33 - B4B
					Packaging 3 - 34 - B4B
					Packaging 3 - 35 - B4B
					Packaging 3 - 36 - B4B
160	QC 21 - SA	60 pcs	2/15/19	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70

Part Op 100 - 1-Cut as per Dwg Dwg Rev: _____ Prog Rev: _____ 2-Deburr if necessary
 Descriptions: 120 - (QC8- Inspect parts - second check)
 130 - (Form as per dwg)
 140 - (QC5- Inspect part completeness to step on W/O)

150 - (Identify as per dwg & Stock Location: _____)
 160 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S14GA	304SS sheet .080	4.8000 sf (.08 ea)	100-Waterjet - Omax - 1	

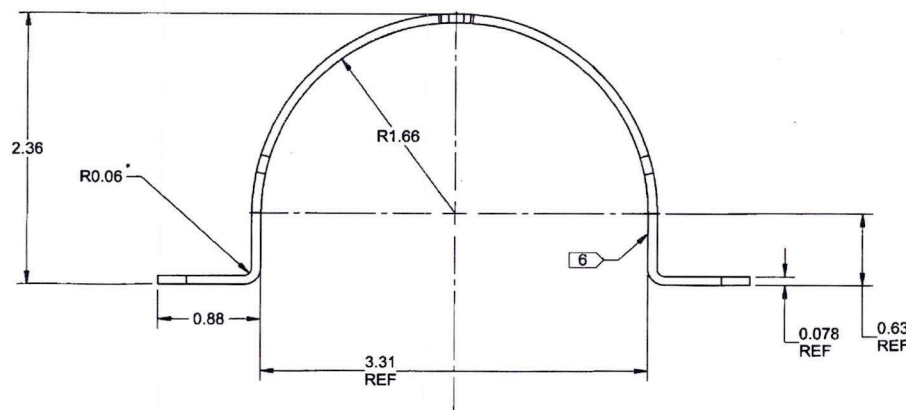
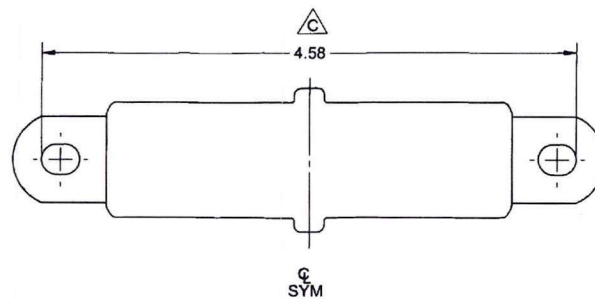
Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Waterjet - Omax - 1	M304S14GA	5	6	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Clamp, Short	0.266Inches + 0.006 - 0.001	0.272 0.265	Diameter	
2	Clamp, Short	0.328Inches ± 0.010	0.338 0.318		
3	Clamp, Short	0.750Inches ± 0.030	0.780 0.720		
4	Clamp, Short	1.000Inches ± 0.030	1.030 0.970		
5	Clamp, Short	1.250Inches ± 0.030	1.280 1.220		
6	Clamp, Short	0.250Inches ± 0.030	0.280 0.220		
7	Clamp, Short	0.130Inches ± 0.030	0.160 0.100		
8	Clamp, Short	4.490Inches ± 0.030	4.520 4.460		
9	Clamp, Short	1.800Inches ± 0.030	1.830 1.770		
10	Clamp, Short	6.454Inches ± 0.010	6.464 6.444		
11	Clamp, Short	7.270Inches ± 0.010	7.280 7.260		
12	Clamp, Short	8.080Inches ± 0.030	8.110 8.050		
13	Clamp, Short	0.080Inches ± 0.010	0.090 0.070		

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D4011-1 CLAMP, SHORT

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42 EGN 15-532

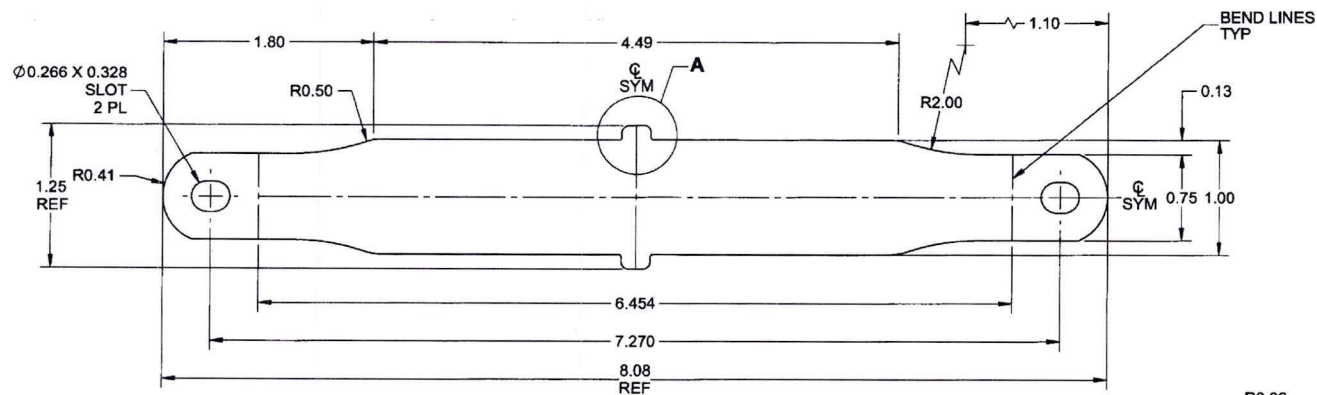


NOTES:

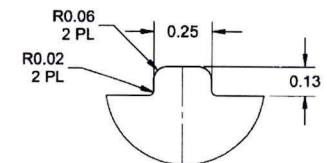
- 1) MATERIAL: MAKE FROM D4011-1F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4011-1" AND B/N PER QSI 044 6.1 (PERMANENT MARKER)
- 7) WEIGHT: 0.02 lbs

C	ADD SLOT HOLES, ADD CUSHION RETENTION DETAILS TO -1/3-5 CLAMPS. REASON: PAR 14-331, NCR 14-3521, PAR 14-368; ZND5-1, A8-1, B6-2, B2-2, D4-3, A8-3, B6-4, B2-4, D5-5, A8-5, B6-6, B2-6, REVISE NOTE 6; ZN A8-2, A8-4, A8-6	VS	14.09.22
B	SHORTEN HEIGHT OF -1/3 CLAMPS BY 0.125; ADDED -.5. REASON: PROVIDE MORE CLEARANCE UPON INSTALLATION ON OEM SKIDTUBES	MB	09.11.11
A	NEW ISSUE	MB	09.10.21
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	DD	D4011	SHEET 1 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CLAMP	NTS
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D4011-1F CLAMP, FLAT PATTERN SHORT



DETAIL A
SCALE 2X
2 PL

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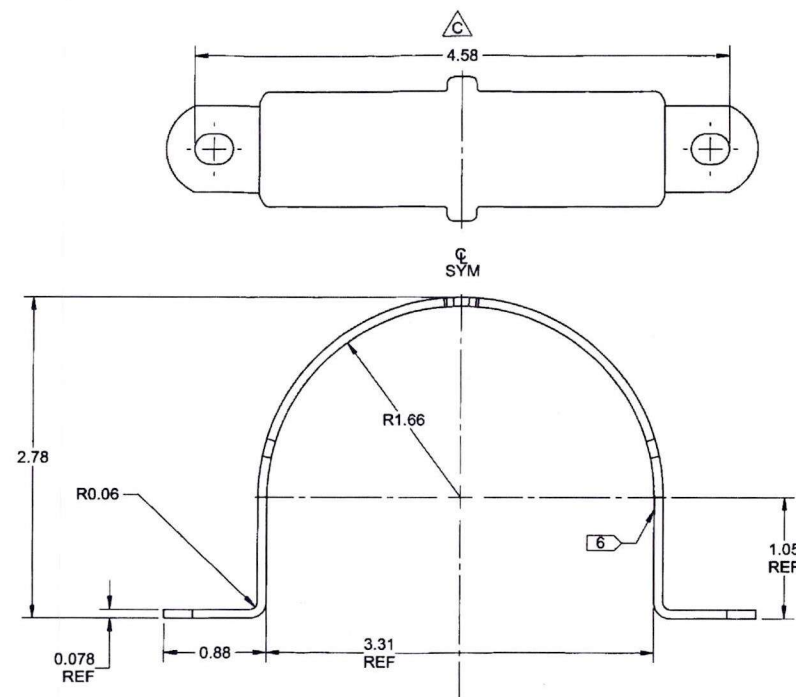
2015 MAR 26

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, 14 GAUGE (0.078 THICK)
PER AMS 5513 (304) OR 5524 (316) OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs
- 8) FOR UNDIMENSIONED DETAILS, REFER TO FLAT PATTERN CAD FILE D4011-1F-RevC.DXF

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DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	DD	D4011	SHEET 2 OF 6
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D4011-3 CLAMP, LONG

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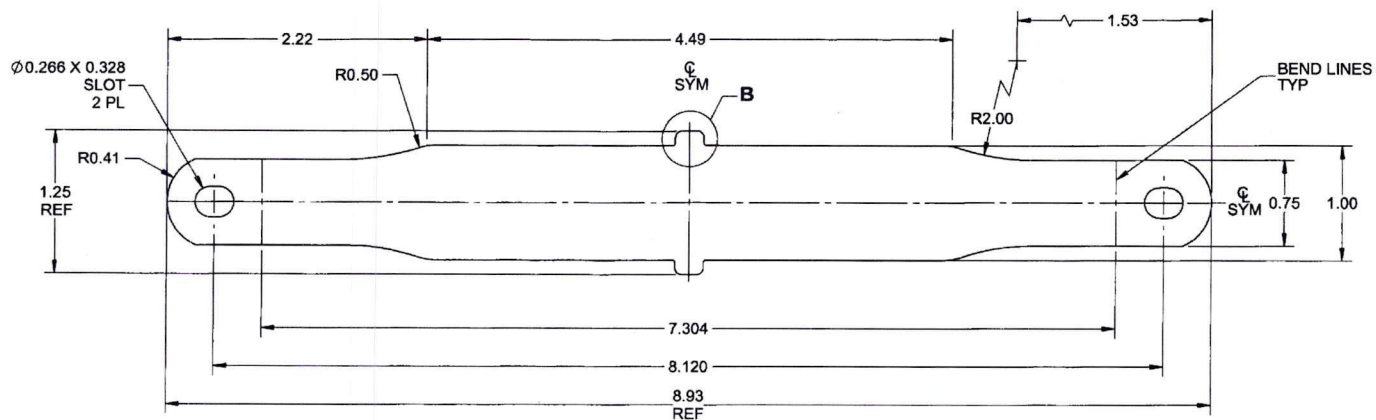
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DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	DD	D4011	SHEET 3 OF 6
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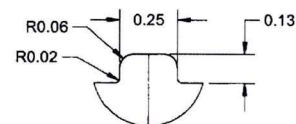


NOTES:

- 1) MATERIAL: MAKE FROM D4011-3F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4011-3" AND B/N PER QSI 044 6.1 (PERMANENT MARKER)
- 7) WEIGHT: 0.02 lbs



D4011-3F CLAMP FLAT PATTERN, LONG



**DETAIL B
SCALE 2X
2 PL**

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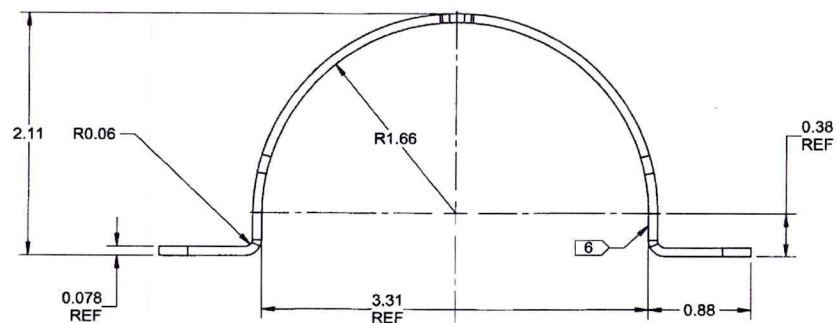
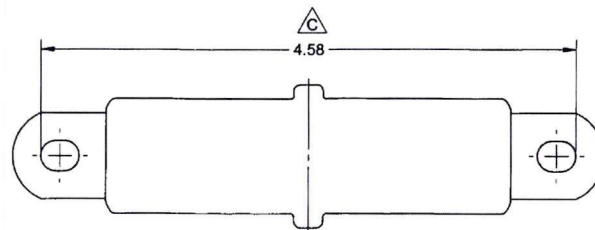
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NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, 14 GAUGE (0.078 THICK)
PER AMS 5513 (304) OR 5524 (316) OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs
- 8) FOR UNDIMENSIONED DETAILS, REFER TO FLAT PATTERN CAD FILE D4011-3F-RevC.DXF

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DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED	RF	DRAWING NO. D4011	REV. C
MFG. APPR.	DD	SHEET 4 OF 6	
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D4011-5 CLAMP, SHORT (OEM)

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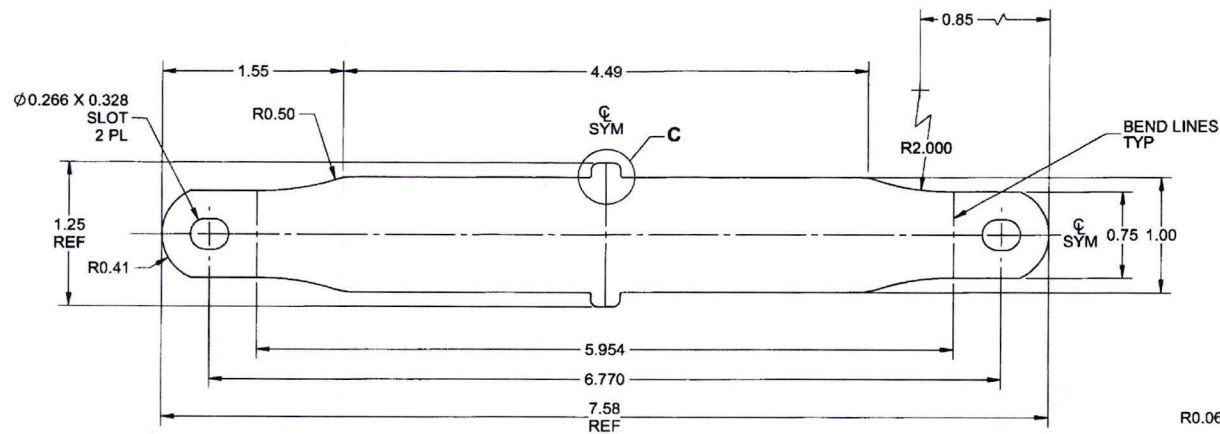
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DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO. D4011	REV. C
MFG. APPR.	DD	SHEET 5 OF 6	
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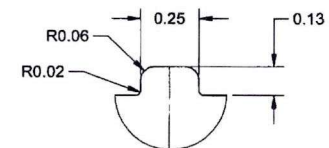


NOTES:

- 1) MATERIAL: MAKE FROM D4011-5F
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4011-5" AND B/N PER QSI 044 6.1 (PERMANENT MARKER)
- 7) WEIGHT: 0.02 lbs



D4011-5F CLAMP, FLAT PATTERN, SHORT (OEM)



DETAIL C
SCALE 2X

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NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, 14 GAUGE (0.078 THICK)
PER AMS 5513 (304) OR 5524 (316) OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304S14GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs
- 8) FOR UNDIMENSIONED DETAILS, REFER TO FLAT PATTERN CAD FILE D4011-5F-RevC.DXF

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DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	DD	D4011	SHEET 6 OF 6
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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Container No: S150031



Part: D4011-1

Job No: 189584

Serial No/Batch: S150031

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.

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CANADA

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Email: sales@dartaero.com

www.dartaerospace.com

Date: 01/31/19